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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/736,582	12/11/2003	Angus Richards	AR-PCT-US	9668
27797	7590	06/23/2009		
RICHARD D. FUERLE 1711 W. RIVER RD. GRAND ISLAND, NY 14072			EXAMINER PHILIPPE, GIMS S	
			ART UNIT 2621	PAPER NUMBER
			MAIL DATE 06/23/2009	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/736,582	Applicant(s) RICHARDS, ANGUS	
	Examiner Gims S. Philippe	Art Unit 2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 March 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 117-126 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 117-126 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This is a first office action in response to a restriction requirement made on December 31, 2008. The applicant elected claims 117-119 and 123-125. New claim 126 was added. The applicant is reminded that the non-elected claims must be cancelled, and the election is considered final.

NOTE: The claim status identifier of the applicant must reflect the current status of the non-elected claim as either canceled or withdrawn. The applicant elected claims 117-126. Leaving the rest of the claims with old identifiers will lead to confusion.

Correction is required.

Double Patenting

2. A rejection based on double patenting of the "same invention" type finds its support in the language of 35 U.S.C. 101 which states that "whoever invents or discovers any new and useful process ... may obtain a patent therefor ..." (Emphasis added). Thus, the term "same invention," in this context, means an invention drawn to identical subject matter. See *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894); *In re Ockert*, 245 F.2d 467, 114 USPQ 330 (CCPA 1957); and *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970).

3. A statutory type (35 U.S.C. 101) double patenting rejection can be overcome by canceling or amending the conflicting claims so they are no longer coextensive in scope. The filing of a terminal disclaimer cannot overcome a double patenting rejection based upon 35 U.S.C. 101.

4. Claims 117-119 and 123-126 are provisionally rejected under 35 U.S.C. 101 as claiming the same invention as that of claims 117-119 and 123-126 of copending Application No. 11/230,173. This is a provisional double patenting rejection since the conflicting claims have not in fact been patented.

NOTE: The Examiner urges the applicant to review all co-pending applications in order to identify claims similar to claims 117-119 and 123-126 of the present application for Double Patenting purpose.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 117, 124 and 125 are rejected under 35 U.S.C. 102(b) as being anticipated by Tamir et al. (US Patent no. 6438508).

Regarding claim 117, Tamir discloses an optical tracking system comprising (a) a video capture device (See Fig. 2, camera 22, 26 and col. 4, lines 13-15); and (b) means for performing a series of image analysis processes to calculate, utilizing data received from the video capture device, change in orientation of the device, change in

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position of the device, or a combination of both change in orientation and position of the device (See col. 4, lines 41-53 and col. 5, lines 26-29); and optionally (c) means of wirelessly communicating this information regarding change in orientation of the device, change in position of the device, or a combination of both change in orientation and position of the device to an external device responsive to said information (See col. 5, lines 46-65).

As per claim 124, Tamir further discloses infrared for communicating ID code (See col. 1, lines 32-37, lines 58-67 and col. 2, lines 25-34).

As per claim 125, Tamir further provides a system comprising an optical means for monitoring visual pattern (See col. 1, lines 58-61), gravity sensors (See col. 4, lines 41-52), and means for determining relative spatial movement and azimuth via an output of the imaging means and for determining pitch and roll via an output (See col. 2, lines 48-57, col. 5, lines 36-41 and lines 55-58).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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8. Claims 118, 119-122 and 123 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tamir et al. (US Patent no. 6438508) in view of Reynolds (US Patent no. 5889550).

Regarding claim 118, most of the limitations of this claim have been noted in the above rejection of claim 117.

It is noted that Tamir is silent about the high contrast passive target placed at predetermined coordinates where the target consist of square or spots or retroreflective spots, and a plurality of fixed intensity light sources as specified in the claims.

However, Reynolds discloses an optical tracking system comprising a high contrast passive target placed at predetermined coordinates where the target consist of square or spots or retroreflective spots, and a plurality of fixed intensity light sources (See Reynolds col. 4, lines 9-19, col. 5, lines 36-46, lines 55-65 and col. 6, lines 22-31).

Therefore, it is considered obvious that one skilled in the art at the time of the invention would recognize the advantage of modifying Tamir optical traking system by incorporating Reynolds' teachings where high contrast passive target placed at predetermined coordinates where the target consist of square or spots or retroreflective spots, and a plurality of fixed intensity light sources. The motivation for performing such a modification in Tamir is to produce the result of the tracking in real time as taught by Reynolds (See col. 3, lines 1-5).

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As per claims 119 and 123, most of the limitations of these claims have been noted in the above rejection of claim 117.

It is noted that Tamir is silent about a plurality of on-axis light sources strobed in synchronization with a capture rate of the video capture device, and means for computing absolute angular and spatial data based on the predetermined coordinates and relative angular and spatial data determined by the video capture device.

However, Reynolds discloses an optical tracking system comprising a plurality of on-axis light sources strobed in synchronization with a capture rate of the video capture device, and means for computing absolute angular and spatial data based on the predetermined coordinates and relative angular and spatial data determined by the video capture device (See Reynolds col. 5, lines 1-12, col. 6, lines 23-34).

Therefore, it is considered obvious that one skilled in the art at the time of the invention would recognize the advantage of modifying Tamir's optical system by incorporating Reynolds teachings in order to measure the relative spatial position of the motion camera to the target assembly as taught by Reynolds (See col. 3, lines 58-66).

As per claims 120-122, see the rejections of claims 117 and 119.

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

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Heier et al. (US Patent no. 5285397) teaches coordinate measuring machine for non-contact measurement of objects.

Osen (US Patent no. 6650360) teaches camera guide system.

Graham (US Patent no. 5502482) teaches derivation of studio camera position and motion from the camera image.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gims S. Philippe whose telephone number is (571) 272-7336. The examiner can normally be reached on M-F (10:30-7:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mehrdad Dastouri can be reached on (571) 272-7418. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Gims S Philippe
Primary Examiner
Art Unit 2621

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